VI. What Is Claimed Is:

1. A method of scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter.

2. The method of claim 1, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

3. The method of claim 2, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

4. The method of claim 2, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send

to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

5. The method of claim 2, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

6. The method of claim 5, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

7. The method of claim 5, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

8. The method of claim 1, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

9. The method of claim 8, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

10. The method of claim 1, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a priority of the data to be sent to the corresponding access terminal.

11. The method of claim 1, wherein the access point calculates a scheduling parameter P_i for an ith access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi};$$

wherein P_i = the scheduling parameter for the ith forward communication link for the corresponding ith access terminal;

R_{MAXi} = the maximum data transmission rate for the ith forward communication link for the corresponding ith access terminal;

R_{AVGi} = the average data transmission rate for the ith forward communication link for the ith corresponding ith access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the ith forward communication link for the corresponding ith access terminal.

12. The method of claim 11, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to R_{MAXi}.

13. A communications network, comprising:

a plurality of access terminals; and

an access point operably coupled to the access terminals by a plurality of corresponding forward communication links;

wherein the access point is adapted to calculate a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

wherein the access point is adapted to schedule data for transmission to the access terminal having the largest scheduling parameter.

14. The communications network of claim 13, wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

15. The communications network of claim 14, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

16. The communications network of claim 14, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

17. The communications network of claim 14, wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a

function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

18. The communications network of claim 17, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

19. The communications network of claim 17, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

20. The communications network of claim 13, wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

21. The communications network of claim 20, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

22. The communications network of claim 13, wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of a priority of the data to be sent to the corresponding access terminal.

23. The communications network of claim 13, wherein the access point is adapted to calculate a scheduling parameter P_i for an ith access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi};$$

wherein P_i = the scheduling parameter for the ith forward communication link for the corresponding ith access terminal;

R_{MAXi} = the maximum data transmission rate for the ith forward communication link for the corresponding ith access terminal;

R_{AVGi} = the average data transmission rate for the ith forward communication link for the ith corresponding ith access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the ith forward communication link for the corresponding ith access terminal.

24. The communications network of claim 23, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to R_{MAXi}.

25. A computer program for scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising instructions for:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter.

26. The computer program of claim 25, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

27. The computer program of claim 26, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

28. The computer program of claim 26, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

29. The computer program of claim 26, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

30. The computer program of claim 29, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

31. The computer program of claim 29, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

32. The computer program of claim 25, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

33. The computer program of claim 32, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

34. The computer program of claim 25, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a priority of the data to be sent to the corresponding access terminal.

35. The computer program of claim 25, wherein the access point calculates a scheduling parameter P_i for an ith access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi};$$

wherein P_i = the scheduling parameter for the ith forward communication link for the corresponding ith access terminal;

R_{MAXi} = the maximum data transmission rate for the ith forward communication link for the corresponding ith access terminal;

R_{AVGi} = the average data transmission rate for the ith forward communication link for the ith corresponding ith access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the ith forward communication link for the corresponding ith access terminal.

36. The computer program of claim 35, wherein the access point calculates the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i;$$

wherein DPA_1 = the size of the data payload available to send to the ith access terminal; and

PS_1 = the physical layer packet size corresponding to R_{MAX1}.

37. A communications network, comprising:
a plurality of access terminals;
an access point operably coupled to the access terminals by a plurality of corresponding forward communication links;
means for calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and
means for scheduling data for transmission to the access terminal having the largest scheduling parameter.

38. The communications network of claim 37, further comprising:
means for calculating the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

39. The communications network of claim 38, further comprising:
means for calculating the frame utilization as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

40. The communications network of claim 38, further comprising:

means for calculating the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

41. The communications network of claim 38, further comprising:means for calculating the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

42. The communications network of claim 41, further comprising:

means for calculating the frame utilization as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

43. The communications network of claim 41, further comprising:

means for calculating the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the ith access terminal.

44. The communications network of claim 37, further comprising:

means for calculating the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

45. The communications network of claim 44, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

46. The communications network of claim 37, further comprising:

means for calculating the scheduling parameter for each of the forward communication links and access terminals

as a function of a priority of the data to be sent to the corresponding access terminal.

47. The communications network of claim 37, further comprising:

means for calculating a scheduling parameter P_i for an ith access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi};$$

wherein P_i = the scheduling parameter for the ith forward communication link for the corresponding ith access terminal;

R_{MAXi} = the maximum data transmission rate for the ith forward communication link for the corresponding ith access terminal;

R_{AVGi} = the average data transmission rate for the ith forward communication link for the ith corresponding ith access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the ith forward communication link for the corresponding ith access terminal.

48. The communications network of claim 47, further comprising:

means for calculating the frame utilization U_{FRAMEi} for the ith forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i;$$

wherein DPA_i = the size of the data payload available to send to the ith access terminal; and

PS_i = the physical layer packet size corresponding to R_{MAX1}.